

Statement based on Article 19 (1) of the Treaty

Claim 1 is mainly made by adding the constitution of the former claim 3 to the constitution of the former claim 1. That is, claim 1 clarifies that "the frame of the primary-side winding and the frame of the secondary-side winding are respectively provided on both sides of the frame of the magnetic-coupling adjusting winding to sandwich the frame of the magnetic-coupling adjusting winding". Claim 1 also clarifies that a notch part for passing the winding is provided for the flange between the frames, in a position on the lower surface side of the bobbin.

In the cited document 1, there is described a high-voltage transformer which is formed by respectively providing a primary-side winding, a secondary-side winding, and a magnetic-coupling adjusting winding in which a part of one of the primary-side winding and the secondary-side winding is wound around. However, in the cited document 1, there is no disclosure in that a flange is provided for a space between the frames around which each of the windings is wound, and in that a notch part for passing the winding is provided for the flange in a position on the lower surface side of the bobbin.

Further, in the cited documents 2, 3, there is no disclosure in that as in the embodiment according to the present invention, the frames for the primary-side winding and the secondary side winding are separately provided, and the magnetic-coupling adjusting winding is wound between the two frames.

Further, in the cited document 4, there is disclosed a bobbin shape provided with a plurality of partition plates, but there is no disclosure in that the leakage inductance is adjusted by the magnetic-coupling adjusting winding. Further, notches (phase grooves in the cited document 4) are provided for two parts on both sides of a split flange, but there is no disclosure as to the constitution as described in

the present invention, in which a notch is formed at one part of the flange, thereby enabling the number of windings to be controlled by integer.

On the other hand, in the constitution according to the present invention, the insulation performance between the respective windings on the primary-side and the secondary-side is ensured by providing a flange between the respective frames, and further, the magnetic-coupling adjusting winding is made to pass a notch provided for one part of the flange, thereby enabling the number of the winding to be managed by integer.

Further, claim 4 clarifies a constitution in which the leakage inductance is largely adjusted, and claim 5 also clarifies a constitution in which the leakage inductance is finely adjusted. Further, claim 6 clarifies a constitution in which connection terminals provided for the bobbin extends in one direction substantially orthogonal to the direction in which the frames are arranged, and are formed as a pin-shape to be inserted to a substrate.